

REMARKS

Reconsideration of the present application is respectfully requested in view of the following remarks. Prior to entry of this response, Claims 1-12, 14-19 and 32 were pending in the application. In the Final Office Action dated September 3, 2008, Claims 1-12, 14-19 and 32 were rejected under 35 U.S.C. § 103(a). Applicant hereby addresses the Office Action's rejections in turn.

Interview Summary

A telephonic interview was held between the Examiner and the Applicants' attorney on December 3, 2008. The Examiner stated that the amendments appear to overcome the cited references. However, a final decision is subject to further search and examination. The Examiner's accommodation of the interview is appreciated.

Rejection of the Claims Under U.S.C. § 103(a)

The Office Action rejected Claims 1-12, 14-19 and 32 under 35 U.S.C. § 103(a) as being unpatentable over *Shen* (US 6,635,781) in view of *Eisenberg* (Computationally-Enhanced Construction Kits for Children: Prototype and principles). The above rejections are addressed in order below and Applicants respectfully submit that the amendments overcome these rejections and add no new matter.

Amended Claim 1 recites a molecular modeling system for use in assembling a plurality of structural elements comprising a node element with a body that includes "at least one connection port disposed relative to the body configured to be coupled to an adjacent structural element" and a computational unit disposed within the body of the node element that is configured to receive information of physical characteristics of the node element from the

connection port and includes “a memory device for storing embedded rules of the body and operational instructions for functioning of the node element”, where the instructions store unique characteristics of the node element, input data from a communications device, output data from a transmission device, communication rules for determining state of the body, rules for building the body, and computational functions for processing of the instructions and interpreting the communication rules and the rules for building. Support for the amendments can be found in the specification (See page 10, paragraph 42).

In contrast, *Shen* at least does not teach or suggest the aforementioned recitations. For example, *Shen* discloses a control system including a low-power microprocessor, which executes programs, performs data manipulations and controls tasks in a robot module. (See *Shen*, column 5, lines 39-41.) Furthermore, *Shen* discloses a memory including a non-volatile memory, a volatile memory, and/or a cache memory and either the memory and/or an I/O system integrating into the control system. (See *Shen*, column 5, lines 50-52.) Nowhere does *Shen* disclose a computational unit including a memory device storing embedded rules of a body or operational instructions for functioning of a node element as listed above. Rather *Shen* merely uses a microprocessor for data processing and robot module control, and this is significantly different from the recited elements.

As discussed above, *Shen* fails to anticipate, teach, or suggest several features of Claim 1. While disclosing inside each cube having a small computer and upon two blocks being juxtaposed so that their letters being in sequence, their respective internal computers communicating via infrared light (See *Eisenberg*, page 5, section 3, paragraph 2), *Eisenberg* fails to cure these deficiencies for the independent claim. Specifically, *Eisenberg* does not teach or suggest a computational unit within the body of a node element including a memory device for

storing embedded rules of a body or operational instructions for functioning of the node element as listed above. Therefore, Claim 1 is allowable over the cited references. Notice to that effect is respectfully requested.

Dependent Claims 2-7, 9-12, and 14-16 depend from Claim 1, and are, therefore, allowable at least for the reasons described above regarding independent Claim 1 and by virtue of their additional features. Accordingly, Applicants respectfully request withdrawal of the rejections of dependent Claims 2-7, 9-12, and 14-16. Claim 8 has been canceled without prejudice or disclaimer.

Amended Claim 17 recites a molecular modeling system for use in assembling a plurality of structural elements that includes a bond element with a computational unit disposed within the body of the bond element for receiving information of physical characteristics of the bond element and a node element with a computational device and a memory device for storing information similar to the information stored by the memory device recited in Claim 1. As discussed above, amended Claim 1 is allowable over *Shen* in view of *Eisenberg*. Therefore, Claim 17 is allowable for the same reasons as discussed above for Claim 1 and by virtue of its additional elements such as the computational unit in the bond element. Notice to that effect is respectfully requested.

Dependent Claims 18 and 19 depend from Claim 17 respectively, and are, therefore, allowable at least for the reasons described above regarding independent Claim 17 and by virtue of their additional features. Accordingly, Applicants respectfully request withdrawal of the rejections of dependent Claims 18 and 19.

Amended Claim 32 recites a structural modeling kit for use in assembling a plurality of structural elements that includes bond elements and node elements with computational devices

and memory devices in their body component for storing information similar to the information stored by the memory device recited in Claim 1. As discussed above, amended Claim 1 is allowable over *Shen* in view of *Eisenberg*. Therefore, Claim 32 is allowable for the same reasons as discussed above for Claim 1 and by virtue of its additional elements. Notice to that effect is respectfully requested.

CONCLUSION

In view of the foregoing remarks and the accompanying Request for Continued Examination, Applicant respectfully requests the reconsideration and reexamination of this application and the timely allowance of the pending claims. The preceding arguments are based only on the arguments in the Office Action, and therefore do not address patentable aspects of the invention that were not addressed by the Examiner in the Office Action. The claims may include other elements that are not shown, taught, or suggested by the cited art. Accordingly, the preceding argument in favor of patentability is advanced without prejudice to other bases of patentability. Furthermore, the Office Action contains a number of statements reflecting characterizations of the related art and the claims. Regardless of whether any such statement is identified herein, Applicant declines to automatically subscribe to any statement or characterization in the Office Action.

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Respectfully Submitted,

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A handwritten signature in black ink, appearing to read "C. Turk".

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